

# Applying 7-1-7 to your Own Data activity

## Cholera (pre-written scenario)

### Overview

During this exercise, we will ask you to calculate timeliness metrics, identify bottlenecks and enablers, and determine actions for an outbreak event. For those not able to bring their own data, we have provided a fictional scenario of an outbreak.

The narrative is intentionally high-level. We ask you to imagine that this outbreak occurred in your country or jurisdiction. When reading through the scenario, extrapolate what the likely bottlenecks are that would lead to the delays based on your systems.

### Background

In your country, a cholera outbreak emerged, triggering a significant public health crisis. This scenario outlines key events, including the first patient's encounter, laboratory confirmation of cholera, and the subsequent organization of the outbreak response by the Public Health Emergency Operations Center (PHEOC).

### Scenario

On Friday, **January 19**, Rajesh enjoyed a night out at the bars with some friends and ate a late-night snack from a street vendor. When he had his first bout of diarrhea on Saturday, **January 20**, he presumed that either he drank too much or the street food was the culprit.

The diarrhea persisted and quickly intensified. He presented to the local hospital on **January 20** with severe diarrhea, vomiting, and dehydration. Healthcare providers initiated hydration and collected stool samples for analysis. The providers tested for common diarrheal diseases, including dysentery and giardia. The test results were negative. Given the negative tests and the watery appearance of the diarrhea, the providers suspected cholera that evening. The providers continued Rajesh's intravenous hydration and added antibiotics and zinc, per protocol for treating cholera. They updated his chart with his course of treatment and suspected illness.

The senior lab manager of the local hospital, who is the main point of contact for the National Public Health Laboratory, returned to work on Monday, **January 22**. She sent the stool samples to the National Public Health Laboratory to be tested for cholera that same day.

The clinical samples from Rajesh reached the National Public Health Laboratory, where on **January 24**, diagnostic tests and culture analyses confirmed the presence of *Vibrio cholerae*. By the time Rajesh's providers got official confirmation, Rajesh was already improving under their care for presumed cholera.

Per protocol, the National Public Health Laboratory reported the lab results to the Ministry of Health on **January 24**.

Following the confirmation, on **January 25**, the national government activated the Public Health Emergency Operations Center (PHEOC) to coordinate and manage the response efforts. A national rapid response team was deployed on **January 27**. They conducted a risk assessment and categorized the event as very high risk on the same day. The incident manager expeditiously communicated assessment recommendations to the Minister of Health.

Once the team had amassed the needed supplies, they conducted infection prevention and control (IPC) assessments at the regional hospital and facilitated training on managing cholera cases beginning on **January 31**.

On **January 31**, a team of community health workers began a door-to-door case-finding campaign and helped those with signs of cholera to report to the assigned health facility. They distributed oral rehydration salts (ORS) and instructed community members to start drinking the ORS solution as soon as they experience diarrhea. They quickly discovered widespread myths about cholera transmission and stigma against those who reported their symptoms to the health authorities.

To dispel these myths, the rapid response team initiated risk communication and community engagement activities on **February 4**, with a slight delay due to needing translation of materials into local languages. Radio and television educated the public about cholera symptoms, preventive measures, and the importance of timely medical attention and sought to dispel myths and reduce stigma.